

What is claimed is:

1. An isolated nucleic acid sequence which codes for
the amino acid sequence shown in Figure 2.

2. The isolated nucleic acid sequence of claim 1 which
has the nucleotide sequence as shown from base 139 to base 4353 in
Figure 6.

3. The isolated nucleic acid sequence of claim 2 which
has the entire nucleic acid sequence shown in Figure 6.

4. An isolated ribonucleic acid sequence transcribed
from the nucleic acid sequence of claim 2.

5. The ribonucleic acid of claim 4 which has a
nucleotide sequence about 8 kilobases long.

6. An isolated polypeptide having the amino acid
sequence shown in Figure 2.

7. The isolated polypeptide of claim 6 which has a
molecular weight of about 160 kDa.

8. The isolated polypeptide of claim 6 which consists of 1404 amino acids.

9. An isolated polypeptide which is encoded by the nucleic acid of claim 2.

10. An isolated antibody which binds to protein products of P2P cDNA.

11. The isolated antibody of claim 10 which binds to the carboxy-terminal half of the polypeptide shown in Figure 2.

12. The isolated antibody of claim 11 which is designated C130.

13. An isolated antisense oligonucleotide which binds to a domain of the open reading frame of claim 2.

14. The isolated antisense oligonucleotide of claim 13 which has the sequence 5' CAGCAGGAGCTGTGTT 3'.

15. A method for repressing the proliferative potential of a cell selected from the group of normal, abnormal, and cancer cells comprising contacting DNA from the cell with an antisense

372.6435P

oligonucleotide which binds to a domain of the open reading frame
of P2P cDNA.

16. The method of claim 15, wherein the antisense
5 oligonucleotide has the sequence 5' CAGCAGGAGCTGTGTT 3'.